REMARKS

In the Office Action dated August 24, 2004, claims 1, 8 and 9 were objected to due to informalities therein, all of which have been corrected. In addition to the correction of these informalities, claim 8 has been editorially amended to simply refer to a "radiation detector" instead of a "radiation detector matrix," because the specific configuration of the radiation detector is not relevant to the patentability of claim 8.

Claim 3 was rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner stated it is unclear what the purpose and cooperative interaction is between the "isolator" and "piston part." Claim 3 has been editorially amended to state that the isolator surrounds at least a portion of the catheter and is connected to the piston part. Claim 3 already stated that the ring anode is disposed in the piston part. Claim 3 simply defines a standard structure for the housing of an x-ray tube of the type having a ring anode, which is well known to those of ordinary skill in the field of x-ray tube design, and need not be described further, either in the specification or in claim 3, for those of ordinary skill in the field of x-ray tube design to understand how to make and use such a vacuum housing structure. Such a vacuum housing structure is shown more schematically, for example, in United States Patent No. 5,751,784, cited as Reference AD in the Information Disclosure Statement filed January 20, 2004 (wherein the isolator is referred to as the ceramic tube 2).

Applicants therefore submit claim 3 is in full compliance with the enablement requirement of 35 U.S.C. §112, first paragraph.

Claims 1-6, 8 and 9 were rejected based on prior art references, but claim 7 was stated to be allowable if rewritten in independent form. Claim 7 therefore has

been rewritten in independent form, by embodying the subject matter thereof in independent claim 1. The subject matter of claim 7 also has been embodied in claims 8 and 9. All of those claims, and the remaining claims depending from claim 1, are therefore submitted to be in condition for allowance.

As noted above, claim 5 was among the claims rejected based on the prior art. Claim 5 was among the claims rejected under 35 U.S.C. §103(a) as being unpatentable over Baker et al. in view of Burke et al. The Examiner stated that Baker et al., in Figure 5, disclose a ring anode 287 having an impact surface 354 with a cross-section that is primarily formed as a circular arc. The cross-section referred to in claim 5, however, is a cross-section that contains the electron beam, i.e., the plane of the drawing in Figure 4 of the present application, showing the embodiment of claim 5. In the embodiment of Figure 5 of Baker et al., it can clearly be seen that, in the plane of the electron beam, the anode ring has a cross-section that is in the form of a trapezoid, with each side of the trapezoid being completely straight (flat). Perhaps the Examiner in rejecting claim 5 based on this embodiment of Baker et al. was envisioning a different cross-section of the ring anode in Baker et al., however, with the designation of the cross-section defined in the manner set forth in the amended version of the subject matter of original claim 5, that is now embodied in independent claims 10, 14 and 15 presented herein, it is clear that the Baker et al. reference does not disclose or suggest an x-ray tube having a ring anode with a cross-section in a plane containing the electron beam that is primarily formed as a circular arc.

It should be noted that the "plane containing the electron beam" in Figure 5 of Baker et al., must be the plane that contains the hatched trapezoidal cross-sections

of the ring anode 287, because this is the only plane that contains "the electron beam," i.e., the electron beam as a whole. It is of course true that the electron beam strikes the anode ring at a point, and therefore a plane containing that point might be envisioned that is perpendicular to the plane of the drawing of Figure 5 in Baker et al. Such a plane, however, would not be a "plane containing the electron beam," but would merely be one of an infinite number of planes passing through a single point of the electron beam.

The rejection of original claim 5, therefore, is respectfully traversed, and Applicants submit that the subject matter of new independent claims 10, 14 and 15, embodying the subject matter of original claim 5 therein, would not have been obvious to a person of ordinary skill in the field of x-ray tube design based on the teachings of Baker et al. and Burke et al.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

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